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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/131,693	08/10/1998	HOON-SOON CHOI	1317.1043/MO	8185

21171 7590 07/09/2004

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1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER
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CHIEU, PO LIN

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 07/09/2004

21

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/131,693

Applicant(s)

CHOI, HOON-SOON

Examiner

Polin Chieu

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-11,13-15,17-19,22-24,39-42,44,46 and 47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,6,8-11,13-15,17-19,22-24,46 and 47 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,39,41,42 and 44 is/are rejected.
- 7) ☒ Claim(s) 3 and 40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/22/04 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 4, 39, 41-42, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Jeong et al (6,233,394).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Jeong et al discloses a demodulator to EFM+ demodulate the pulse stream in a DVD mode (212, fig. 2), and EFM demodulate the pulse stream in a CD mode (214), to generate demodulated data; an ECC decoder to error-correct the demodulated data stored according to a predetermined code length and error correction range, the predetermined code length and error correction range having different values in the DVD and CD modes, to generate error corrected data (230 and 235); and a memory to store the error corrected data from the ECC decoder, wherein the memory comprises a first memory map including a plurality of blocks of error corrected data each having a first fixed number of bytes in the DVD mode, and a second memory map including a plurality of frames of the error corrected data each having a second fixed number of bytes in the CD mode (col. 4, lines 16-40).

Regarding claim 2, Jeong et al discloses that the predetermined code length and error correction range in the DVD mode are PI (182,172) and PO (208,192) (col. 4, lines 16-40). Jeong et al discloses that the error correction means corrects error for a CD mode using a conventional Cross Interleave Reed Soloman code (col. 4, lines 41-45). A conventional Cross interleave Reed Soloman code (CIRC) has a predetermined code length and error correction range of C1 (32,28) and C2 (28,24).

Regarding claim 4, Jeong et al discloses that the memory is an external memory (280, fig. 2).

Regarding claim 39, Jeong et al discloses a PLL to receive the pulse stream, to generate a PLL clock (300, fig. 1); a frame/ID synchronization detector to latch the pulse stream according to the PLL clock, to generate a symbol clock (col. 3, lines 21-39); a demodulator to EFM+ demodulate the pulse stream according to the symbol clock in a DVD mode (212, fig. 2), and EFM demodulate the pulse stream according to the symbol clock in a CD mode (214), to generate demodulated data; a memory to store the demodulated data for the demodulator (280); an ECC decoder to error-correct the demodulated data stored in the memory according to a predetermined code length and error correction range, the predetermined code length and error correction range having different values in the DVD and CD modes, to generate error corrected data (230 and 235); a descrambler to descramble the error corrected data stored in the memory, in the DVD mode (240); and a CD audio processor to process the error corrected data stored in the memory, in the CD mode (200, fig. 1), wherein the memory has a first memory map including a plurality of blocks of the error corrected data each having a first fixed number of bytes in the DVD mode, and a second memory map including a plurality of frames of the error correction data each having a second fixed number of bytes in the CD mode (col. 4, lines 16-40).

Regarding claim 41, Jeong et al discloses a PLL to receive the first and second pulse stream, to generate respective first and second PLL clocks (300, fig. 1); a frame/ID synchronization detector to latch the first and second pulse streams according to the first and second PLL clocks, to generate respective first and second symbol clocks (col. 3, lines 21-39); a demodulator to perform a first type of demodulation on the

first pulse stream according to the first symbol clock to generate first demodulated data of a DVD mode (212, fig. 2), and a second type of demodulation on the second pulse stream according to the second symbol clock to generate second demodulated data of a CD mode (214); a memory to store the first and second demodulated data (280); an ECC decoder to error-correct the first demodulated data stored in the memory in accordance with first a predetermined code length and error correction range and to store the error corrected first demodulated data back in the memory, and to error correct the second demodulated data stored in the memory in accordance with a second predetermined code length and error correction range and to store the error corrected second demodulated data back in the memory (230 and 235); a first memory map to store the error corrected data second demodulated; and a second memory map different from the first memory map, to store the error correction second demodulated data (col. 4, lines 16-40).

Regarding claim 42, Jeong et al discloses that the first memory map provides an VBR control margin to interface the error corrected first demodulated data with an audio/video decoder (290).

Regarding claim 44, Jeong et al discloses a demodulator to demodulate the first and second pulse streams in a DVD mode (212) and a CD mode (214), respectively, to generate a first and second demodulated data, respectively; a memory to store the first and second demodulated data (280); and an ECC decoder to error correct the first demodulated data stored in the memory in accordance with a first predetermined code length and error correction range in the DVD mode, and to error correct the second

demodulated data stored in the memory in accordance with a second predetermined code length and error correction range in the CD mode (col. 4, lines 16-40), wherein the memory stores the error corrected first demodulated data output from ECC decoder in a first memory map, and the error corrected second demodulated data output from the ECC decoder in a second memory map different from the first memory map (col. 4, lines 16-40).

***Allowable Subject Matter***

4. Claims 5-6, 8-11, 13-15, 17-19, 22-24, and 46-47 allowed.
5. Claims 3 and 40 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Das et al and Howe et al disclose conventional CIRC.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Polin Chieu whose telephone number is (703) 308-6070. The examiner can normally be reached on M-Th 8:00 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B. Christensen can be reached on (703) 308-9644. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any response to this action should be mailed to:

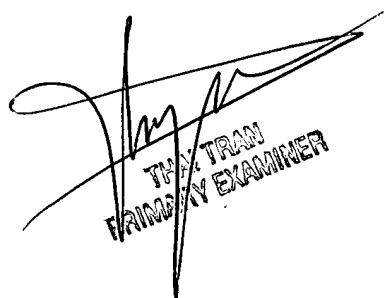
Commissioner of Patents and Trademarks

Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

PC  
June 25, 2004



TRAN TRAN  
PRIMARY EXAMINER